

AERIAL OUTFIT AKU(5)

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SUMMARY OF DATA

PURPOSE

AKU(5) is a narrow band aerial designed for use with Submarine X-Band Radar Type 1004 to provide combined sea and air warning.

BRIEF DESCRIPTION

The aerial is mounted on a periscopic mast that is raised and lowered by wires. The drive mechanism is mounted on the pressure hull, and connects with the mast only in the fully raised position. Connection to the standing waveguide is by means of a spring loaded waveguide connection, size B, that connects up only in the fully raised position. Associated electrical services are similarly connected. Aerial true bearing is transmitted by magstrip. A manually operated sector selection facility is provided.

BEAM WIDTHS

- 1.8° horizontal (at half field strength)
- 9° vertical (at half field strength), tilted 3° upward to the horizontal.

SCANNING SPEED

AKU(5) 5 r.p.m.

MAJOR UNITS

- | | |
|-----------------------------|---|
| 3010-AP 210082 | Gear Assembly Speed Decreaser |
| AP 65986 | Induction Motor, 1/2 hp. |
| 5990-99-972-6467 | Synchro Differential Transmitter |
| AP 67160 | Aerial Position Indicator Box |
| AP 67161 | Aerial Position Indicator Box |
| 5985-AP 186261 | Aerial Control Unit |
| AP 63765 | Control Unit, Design 106, RF |
| AP 71023 | Reflector Assembly, matched |
| AP 71023A | |
| AP 58189 (Part of AP 61841) | Rotating Joint (Waveguide Connection Design 27) |
| AP 61841A | Mast Crosshead Bottom Casting Matched Assembly Design 2 |
| 5985-AP 186361 | Spring Loaded Waveguide Connection Size B |

PHYSICAL DATA

Overall length of AKU(5) mast, aerial to base casting, 11m (36 ft 7 in.) Diameter of mast 24.1 cm (9 1/2 in).

POWER REQUIREMENTS

- 115V, 60 Hz, 3 phase
- or 230 V, 50 Hz 1 phase, for Aerial Control Unit
- 24V, dc for RF Control Unit and MAST RAISED lamps

HANDBOOK

BR 2944

ESTABLISHMENT LIST

E1347

INSTALLATION SPECIFICATION

B.600 Addendum G.